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EXAMINER

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The time period for reply, if any, is set in the attached communication.

RECORD OF ORAL HEARING
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte GIUSEPPE GUARINO,
ERMANNO FILIPPI

Appeal 2008-0412
Application 09/231,791
Technology Center 1700

Oral Hearing Held: July 8, 2008

Before CHARLES F. WARRE, THOMAS A. WALTZ,
and JEFFREY T. SMITH, Administrative Patent Judges.

ON BEHALF OF THE APPELLANT:

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1 The above-entitled matter came on for hearing on Tuesday, July
2 8, 2008, commencing at 9:03 a.m., at the U.S. Patent and Trademark Office,
3 600 Dulany Street, Alexandria, Virginia, before Dawn A. Brown, Notary
4 Registration No. 7066896, Notary Public.

5 THE USHER: Good morning. Calendar Number 6, Appeal
6 Number 2008-0412. Mr. Emery.

7 MR. EMERY: Good morning.

8 JUDGE WARREN: Good morning, Mr. Emery. As you know,
9 sir, you have 20 minutes. You may proceed when ready.

10 MR. EMERY: Okay. May it please the Board, just for the
11 record, I'm Dave Emery, and I'm here to represent the assignee, Ammonia
12 Casale, in this appeal. If you have any questions at any time, feel free to
13 interrupt me.

14 Basically, what we have is a 103 rejection under Poussin that I
15 want to address first. There are really, basically, two issues on this rejection.
16 So this is the rejection of -- rejections of Claims 1 through 7 over Poussin.

17 And I think we addressed two issues in the appeal and reply
18 brief. The first was the feature of Claim 1 and it is identical to Claim 6, but
19 recites at least a portion of said unperforated cylindrical wall remains below
20 the upper level reached by the catalyst.

21 And in our case, the unperforated cylindrical wall is a portion of
22 our cap. What we -- our view is that if you look at Figures 4, 5, 7, 6,
23 Poussin -- we don't believe Poussin shows that the cap extends into the
24 catalyst bed. It is also depicted in Figure 1. I think Figure 1 is somewhat
25 unclear as to what portion is the cap.

26 If you look at Figures 4, 5, 7, 6 that have the blown-up close-

1 ups of the configuration of the cap over the Central Stack 9, they show it
2 ending where the Line 19 would extend. And 19 is a material that is
3 covering the catalyst bed. That is one of the features I would believe
4 Poussin does not show.

5 The second feature is the feature that we recite in Claim 1,
6 providing an unperforated cylindrical wall coaxial to said gas outlet wall and
7 said catalytic bed set, unperforated cylindrical wall extending from an upper
8 end of said gas outlet wall along a perforated portion of said gas outlet wall.

9 And it is depicted in our figure. We show this wall extending
10 on the external portion of the gas outlet wall where it is perforated and
11 running adjacent to those perforations.

12 Second point, from our view, Poussin does not show this
13 feature --

14 JUDGE SMITH: Is that a part of your cap?

15 MR. EMERY: Yes.

16 JUDGE SMITH: And that is the portion you're saying is
17 reaching into the -- extends into the catalytic bed, right?

18 MR. EMERY: Yes.

19 JUDGE SMITH: Okay.

20 MR. EMERY: Our unperforated cylindrical wall forms a gap
21 between the gas outlet wall and the perforated portions. It runs along a
22 perforated portion of the gas outlet wall.

23 In our view, Figure 1 fails to show the perforations extending to
24 that level. Figures 4, 5, 7, and 6 also show the perforations ending before
25 they reach that. I guess Figure 6 and Figure 4 probably tend to show a cap
26 configuration that is more similar as opposed to the 5 and 7, which a portion

1 of the cap is an extension of the flexible material 19 extending upward.

2 But if you look at Figures 4 and 6, they show the cap -- the
3 bottom portion of the cap extending down along the central stack, and it
4 ends before the perforations start in those figures.

5 JUDGE WALTZ: So you're saying that central tube is not -- of
6 the reference is not completely perforated the whole length?

7 MR. EMERY: Yes. We are saying -- I'm saying it doesn't
8 disclose that it is. What the reference does say is a portion -- 9, which is
9 generally a perforated tube covered by a grid. But, you know, generally
10 perforated doesn't depict really where the perforations are. Doesn't say
11 completely -- perforated completely.

12 And, in fact, if you read the reference, it talks about how the gas
13 flows in Figure 1. And the idea of the gas flow is to come in and flow
14 radially toward the perforations from the outer portion of the reactor and
15 then down through the gas outlet tube.

16 And in Figure 1 it shows only portions of these for whatever
17 reason. I think you would say that you would assume they would be along
18 full length adjacent to the catalytic bed. Although it is not showing all of
19 them, it does show -- I think it is -- what Figure 1 is tending to show is the
20 upper and lower means or their upper and lower extension of those
21 perforations.

22 Because they're not needed when you get below -- if you look
23 at Figure 1, Line 17, and they're also not needed if you go above 19, which
24 is the top of the catalytic bed.

25 JUDGE SMITH: Your claimed invention is directed toward a
26 method for modernization of a synthesis reactor, correct?

1 MR. EMERY: Yes.

2 JUDGE SMITH: What components are you replacing? And
3 the first question is, is your reactor similar to that of the reference that you're
4 actually modernizing?

5 MR. EMERY: It has similarities, yes. And I think the
6 similarities are in the basic function of the gas flow and some of the
7 components. And one problem that our invention addresses is the use of a
8 newer catalyst -- better, more efficient catalyst, and it occupies less space,
9 less volume.

10 And when you're retrofitting an older reactor because you have
11 these perforations above where the top of the bed would lie, you can't do it,
12 basically, unless you configure something that will allow for this change.

13 So, basically, what our specification says and better say is that
14 people were just not replacing -- some of these older reactors they are just
15 not replacing the catalyst.

16 Whereas in our design, even if you have a full bed and you
17 decide to change the catalyst because you have this cap that runs down along
18 the perforations, the catalytic bed can raise and lower, and you're still riding
19 along that predetermined extension of the cap so that you don't open
20 perforations and allow gas to shortcut without going through the catalyst.

21 JUDGE SMITH: So if you were retrofitting the catalyst -- well,
22 the reactor of the prior art and you wanted to use less catalyst, you would
23 extend -- it seems you would extend the length of the cap around the wall so
24 that it would reach into the bed. Otherwise, the reactor would not function.

25 MR. EMERY: I'm not sure if I'm -- which wall would you
26 extend?

1 JUDGE SMITH: You would actually extend -- well, according
2 to your application, 15 in your drawing or the side portion of 10 of the
3 reference.

4 MR. EMERY: Yes. You mean the side portions of 10 in the
5 reference?

6 JUDGE SMITH: Yes.

7 MR. EMERY: You would have to -- the problem is these are
8 pressure vessels, and pressure vessels, you can't just open them and access
9 them and replace the components. They're usually sealed.

10 JUDGE SMITH: Right.

11 MR. EMERY: So to do it, if you have -- you know, if you look
12 at our Claim 6, which is the apparatus, if you have the cap already built to
13 have this extension in there and the ability for gas and perforations inside of
14 the cap to go, you can change the catalyst without having to go in and
15 change other metallic components and welds internal to the reactor.

16 JUDGE SMITH: Okay.

17 MR. EMERY: So ours can apply to just one that has not been
18 modernized as well because you design into it the ability to handle different
19 levels of catalyst in the catalytic bed.

20 JUDGE SMITH: Well, Claim 3, you argue this free space,
21 which is depicted as 16 in your drawing. Have you identified the
22 significance of this free space?

23 MR. EMERY: It is to enable a certain amount of gas flow. It's
24 -- the idea is to keep the perforations of the whole stack available for gas
25 flow even if you reduce the level of catalyst, and space is what enables the
26 gas to flow up adjacent to the central stack and after the perforations.

1 JUDGE SMITH: Do you have anything further you'd like to
2 present?

3 MR. EMERY: I think that is all we have to present at this time.

4 JUDGE WARREN: I think you have explained the position.
5 Thank you very much.

6 MR. EMERY: Thank you.

7 Whereupon, the proceedings at 9:15 a.m. were concluded